

REMARKS

This Amendment is submitted in reply to the First Office Action dated April 23, 2010. Applicant respectfully requests reconsideration and further examination of the patent application pursuant to 37 C.F.R. § 1.111.

Summary of the Examiner's objections and rejections

The specification stands objected to because of various informalities.

The Drawings stands objected to as failing to comply with 37 CFR 1.84(p)(5) because FIG. 5 includes reference character "DB2" which is not mentioned in the description.

Claim 3 was objected to because of an informality where "comprising the step" should read --comprising a step--.

Claims 11-15 stand rejected under 35 U.S.C. § 112 (second paragraph) as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 20, 21 and 24 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ginter (US 5,917,912).

Claims 1-19, and 22-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ginter (US 5,917,912) and further in view of Kawell (WO 00/20950).

Summary of claim amendments

Applicant has canceled claims 2-4, 12-14 and 22-23 (without prejudice), amended claims 1, 5, 10, 11, 15 and 20, and added new claim 29. The support for the amendments to independent claim 1 can be found in canceled claims 2-4. The support for the amendments to independent claim 10 can be found in canceled claims 12-14. The support for the amendments to independent claim 20 can be found in canceled claims 22-23. The dependent claims 5, 11 and 15 were amended for antecedent purposes in view of the amendments to base claims 1 and 10. The support for the new independent claim 29 can be found in originally filed claims 1 and 2-4 and on page 34, line 31 in the originally filed PCT patent application. No new subject matter has been added.

Remarks regarding the specification objections

The specification stands objected to because of various informalities. Applicant has provided a new abstract and amended paragraphs [0064]-[0065] and [0085] to correct the grammatical errors. However, Applicant was not able to find any embedded hyperlink and/or other form of browser-executable code in the PDF version of the specification that was electronically filed with the USPTO. If the Examiner would indicate specifically where the embedded hyperlink and/or other form of browser-executable code is located within the specification then the Applicant would correct this particular informality. Accordingly, Applicant respectfully requests the removal of this objection.

Remarks regarding objected claim 3

Claim 3 was objected to because of an informality where "comprising the step" should read --comprising a step--. Applicant has incorporated claim 3 into the independent claim 1. Accordingly, Applicant respectfully requests the removal of this objection.

Remarks regarding the §112 (second paragraph) rejections

Claims 11-15 stand rejected under 35 U.S.C. § 112 (second paragraph) as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended claim 11 to depend from the independent claim 10. Plus, Applicant has incorporated claims 12-14 (now canceled) into independent claim 10. Moreover, Applicant has amended claim 15 to depend from the independent claim 10. Accordingly, Applicant respectfully requests the removal of this rejection.

Remarks regarding the §102(b) and §103(a) rejections

Applicant respectfully submits that the amended independent claim 1 (which includes limitations of the previous claims 1 and 2-4) is not unpatentable in view of Ginter, Kawell or any combination thereof. The amended independent claim 1 recites

the following:

1. A method for control of usage of content, wherein protected content exists being usage restricted by one or more first usage rights specifying one or more usage restrictions and/or one or more usage permissions of the protected content at a user device, the method comprising the steps of
 - obtaining the content at the user device from the protected content in accordance with the one or more first usage rights by decrypting the protected content by a first content encryption key in a first secure environment of the user device and by accessing the decrypted content in the first secure environment,
 - defining at least one usage right at the user device, the at least one defined usage right specifying one or more usage restrictions and/or one or more usage permissions of the content at a recipient device and the at least one defined usage right comprising a temporal restriction,
 - verifying that the at least one defined usage right is a subset of the one or more first usage rights,
 - generating at the user device integrity protection information for the at least one defined usage right,
 - encrypting the content with a content encryption key,
 - encrypting the content encryption key with a key encryption key associated with the recipient device and/or an operator of the recipient device,
 - communicating the encrypted content, the at least one defined usage right, the encrypted content encryption key, and the integrity protection information to the recipient device,
 - restricting the one or more first usage rights in consequence of the definition and/or the communication of the at least one defined usage right to the recipient device,
 - verifying at the recipient device the integrity of the at least one defined usage right based on the integrity protection information,
 - decrypting at the recipient device the encrypted content encryption key with a decryption key corresponding to the key encryption key,
 - decrypting the encrypted content with the content encryption key in a secure environment of the recipient device,
 - applying the at least one defined usage right to the content in the secure environment,
 - using the content at the recipient device according to the applied at least one usage right,
 - restricting or blocking or deleting the at least one defined usage right at the recipient device before the expiry of the temporal restriction,
 - generating by the recipient device at least one received usage right that is a subset of the at least one defined usage right,
 - communicating an indication of the restricting or blocking or deleting to the user device, the indication comprising the at least one received usage right,
 - applying the at least one received usage right at the user device until the expiry of the temporal restriction, and
 - abolishing the restriction of the one or more first usage rights when the temporal restriction expires (emphasis added to highlight the distinctive features of the claimed invention).

The Examiner's closest prior art Ginter describes a system and methods for secure electronic rights protection to control the usage for distributed content. Objects containing encrypted content and permission records (PERC) specifying usage rights can be sent from a content creator to content user. The objects can be processed in a secure processing environment (SPU). A PERC can contain one or more key blocks comprising a content decryption key usable for decrypting the content at the end user's device. The key block may be encrypted by an end user's public key for making these key blocks usable only to the end-user's SPU that stores the corresponding private key. Integrity protection for "information that maybe subject for modifications outside the protected processing environment" is possible, e.g. by a check value of "information that is to be integrity protected" in PERC. Furthermore, in addition to "distribution" mode, objects may be "moved" or "redistributed" from one appliance to another. If an object is "moved" the content can be used simultaneously at both appliances according to the PERC wherein "redistribution" is synonymous with "distribution" mode.

The Examiner has acknowledged that Ginter does not teach the following highlighted claimed limitations:

- restricting or blocking or deleting the at least one defined usage right at the recipient device before the expiry of the temporal restriction,
- generating by the recipient device at least one received usage right that is a subset of the at least one defined usage right,
- communicating an indication of the restricting or blocking or deleting to the user device, the indication comprising the at least one received usage right,
- applying the at least one received usage right at the user device until the expiry of the temporal restriction, and
- abolishing the restriction of the one or more first usage rights when the temporal restriction expires

Applicant submits that if Ginter fails to teach the highlighted communicating step then it follows Ginter also fails to teach the claimed applying step because the user device applies the "at least one received usage right" that was communicated from the recipient device to the user device. In addition, Applicant fails to see how Ginter teaches the claimed generating step since the cited Ginter disclosure relates to users

selecting a subset of rights authorized from a PERC but does not disclose where a user device follows one or more usage rights and defines at least one usage right (which is a subset of the one or more usage rights) for a recipient which then generates at least one received usage right (which is a subset of the at least one usage right) and communicates the at least one received usage right back to the user device which applies the at least one received usage right (see col. 156, lines 18-26 in Ginter and page 13 in Office Action). In any case, Applicant respectfully submits that Ginter and Kawell fail to disclose or suggest this combination of distinctive features within the amended independent claim 1.

In this regard, the presently claimed invention concerns a method for controlling usage of content. In short, a user device defines at least one usage right for using content at a recipient device. The at least one defined usage right comprises a temporal restriction. The usage right and the content are communicated to the recipient device. In consequence, the one or more (so-called) first usage rights specifying the usage of the content at the user device are restricted. On the other side, the recipient device can use the content according to the received usage right until the temporal restriction expires.

The inventive method continues such that before the expiry of the temporal restriction, the at least one defined usage right is restricted, blocked or deleted at the recipient device which further generates at least one (so-called) received usage right that is a subset of the at least one defined usage right. The received usage right is then communicated together with an indication of the restricting or blocking or deleting to the user device which in turn applies the at least one received usage right (for using the content) until the expiry of the temporal restriction. When the temporal restriction expires, the restriction of the one or more (so-called) first usage rights is abolished at the user device and the user device can use the content according to the then unrestricted first usage rights.

Hence, the claimed invention addresses actions and communications performed at or between the recipient device and the user device before the expiry of the temporal restriction up to until the expiry of the temporal restriction and after the expiry of the temporal restriction. The following citations from the description support this

understanding: "In situations where an earlier transfer of the usage rights to the user device is desirable, e.g. if a user of the recipient device uses the content but does not like the content or is not interested to use the content or keep the content until the temporal restriction expires", see page 34 lines 25 et seq., then basically the right to use the content can be back-transferred according to the first four distinctive claimed features listed above. Similar, "in a time interval ranging from the reception of the received usage rights until the expiry of the temporal restriction usage of the received usage rights exceeding the restricted first usage rights is possible at the user device", see page 10 lines 2 et seq. Hence, until the expiry of the temporal restriction, the recipient device can communicate the (so-called received) usage right to the content to the user device for the back-transfer and the user device can use the received usage right until the expiry.

In addition, the inventive method provides for clear regulations how the user device and the recipient device should use the content in view of the first, the defined, and the received usage rights at various points in times and time intervals and provides enhanced options and flexibility on the definition of usage rights, i.e.:

- after the communication of the content and the (so-called defined) usage right to the recipient device, the recipient device is provided with the possibility to communicate the received usage right at any time in a time interval ranging from the reception of the content and the defined usage right max. until the temporal restriction expires;
- after the communication of the received usage right happened until the expiry of the temporal restriction, the recipient device can only use the content to the extent the restriction, blocking, or deleting allows (typically no content usage is possible at the recipient device after the back-transfer). On the other side, the user device can use the content according to the received usage rights and not according to the restricted first usage rights in this time interval.
- after the expiry of the temporal restriction, the recipient device cannot use the content anymore and the user device can use the content according to the then unrestricted first usage rights.

The claimed distinctive features of the inventive method and their implied regulations further provide for a greater flexibility and in addition allow for an efficient use of the usage rights, the latter being explained in more detail now: if a user device possesses the first usage rights to use the content at the user device, the usage at the user device would be not be possible according to a system according to Ginter after

the communication of the content and the usage right to a recipient device would have happened. If a user device would like to access the content after this communication happened, it would need to request another usage right and content from the central rights distributor of Ginter, which is not very efficient. The distinctive claimed features hence provide an elegant solution allowing the efficient use of a once granted first usage right at any point in time after the communication of the content and the defined usage right happened.

In summary, those actions and communications expressed by the distinctive claimed features provide for a back-transfer of a right to use content from a recipient device (which has previously received the content and a usage right from a user device) to the user device at any time after the communication of the content and the usage right from the user device to the recipient device happened with increased flexibility and efficiency. Thus, the claimed invention solves a technical problem that may be formulated as how to provide for a back-transfer of a right to use content from a recipient device (which has previously received the content and a usage right from a user device) to the user device at any time after the user device has communicated the content and the usage right to the recipient device with increased flexibility and efficiency. The skilled person being faced with this technical problem would not find a solution in Ginter because this document fails to address the issue of a back-transfer of rights to content from the recipient device to the user device. Kawell fails to correct Ginter's deficiencies.

Kawell concerns lending of data items such as content from a sending computer to a recipient computer. Lending means that a "permission to use a data item" (page 12 line 27) "is effectively returned to the sending computer from the recipient computer (page 13 lines 5-6). The lending method according to Kawell is based on a usage permission transfer method which is basically augmented by expiration times for returning the permission to use the data item from the recipient computer to the sending computer after the expiration of the expiration times, i.e. in terms of the presently claimed invention, Kawell addresses the time interval after the expiry of the temporal restriction.

In particular, Kawell's usage permission transfer method works as follows: at the sending computer a data item is stored that is encrypted with a secret key. After receiving a request for the data item by a recipient computer as well as a public key of the recipient computer, the sending computer encrypts with this public key a secret key and a voucher. The encrypted data item as well as the encrypted secret key and the encrypted voucher are sent to recipient computer which in turn decrypts the secret key and the voucher with it's private key and finally decrypts the data item with the decrypted secret key. The usage permission transfer method with lending is described on page 12 line 26 to page 13 line 6. When the permission to use data item shall be lent, the secret key is associated with matching expiration times 102S and 102R at the sender computer and the recipient computer, respectively, so that the secret key cannot be used (and therefore the data item cannot be used) at the sender computer until the expiration time 102S is reached and can be used at the recipient computer only until the expiration time 102R is reached. It is further concluded, that the permission is effectively returned to the sender computer from the recipient computer when the expiration time is reached. In other words, no usage right is communicated after the expiry, but the system is configured such that after the expiry of 102S the sending computer can use the data item again.

Hence, Kawell's usage permission transfer method with lending does not consider the case of an earlier back-transfer of a right to use of content and none of the associated steps, i.e. in the time interval before the expiration time is reached of the claimed invention. Hence, Kawell does not disclose the following distinctive features of the claimed invention:

- restricting or blocking or deleting the at least one defined usage right at the recipient device before the expiry of the temporal restriction,
- generating by the recipient device at least one received usage right that is a subset of the at least one defined usage right,
- communicating an indication of the restricting or blocking or deleting to the user device, the indication comprising the at least one received usage right,
- applying the at least one received usage right at the user device until the expiry of the temporal restriction,

because all of these steps are performed in the time interval before the expiry of the temporal restriction up to the expiry of the temporal restriction.

Kawell, further describes on page 13 lines 20-25 that “the voucher may also specify whether the recipient computer is permitted during the time of lending ... to serve as a sender computer for the specified data item in another usage permission transfer with another recipient computer (e.g. to effectively sub-lend ... the permission)”. However, sub-lending is another aspect. Assuming that the “another computer” on page 13 lines 20-25 would be the “sending computer”, this would effectively mean a reversal of the roles of the initial sending computer becoming then a recipient computer (the so-called “another recipient computer”) and the initial recipient computer would become the (subsequent) sending computer. However, a reversal of the roles of the sending and the recipient computer means also to back-transfer the content according to the teachings of both D1 and D2. In contrast, the present invention is concerned with a back-transfer of a usage right and not with a back-transfer of the content. It is not in the interest of the skilled person to back-transfer any content, because the content is anyhow present at the user device. Furthermore, the communication effort (e.g. necessary bandwidth, transmission time, processing and computing power at the respective sending and recipient devices etc.) is much higher for content compared to a usage right, especially for contents like digital books or videos.

Hence, the skilled person would not consider the teaching of the general principle of a reversal of roles worth to be investigated further, because role-reversal clearly implies a back-transfer of content which is evidently unnecessary and undesired. In addition, there is no teaching in Kawell how to proceed with a restricted first usage right and a received usage right at the user device in the time interval between the reception of the received usage right until the expiry of the temporal restriction and after that time interval. In view of at least the detailed reasons given above, Applicant is of the opinion that any combination of Ginter and Kawell does not teach the claimed limitations or lead the skilled person to the invention. Accordingly, Applicant respectfully submits that amended independent claim 1 and corresponding dependent claims 5-9 are patentable in view of Ginter, Kawell or any combination thereof.

Applicant respectfully submits that the amended independent claims 10 and 20 are also patentable in view of Ginter, Kawell or any combination thereof. The independent claims 10 and 20 recite the same or similar distinguishing limitations that have been discussed above with respect to the amended independent claim 1. As such, the aforementioned remarks regarding the patentability of the amended independent claim 1 apply as well to the amended independent claims 10 and 20. Accordingly, Applicant respectfully requests the allowance of the independent claims 10 and 20 and the corresponding dependent claims 11, 15-19, 21 and 24.

Remarks regarding the new independent claim 29

Applicant respectfully submits that the new independent claim 29 is patentable in view of Ginter, Kawell or any combination thereof. The new independent claim 29 is as follows:

29. (New) A method for control of usage of content, wherein protected content exists being usage restricted by one or more first usage rights specifying one or more usage restrictions and/or one or more usage permissions of the protected content at a user device, the method comprising the steps of

- obtaining the content at the user device from the protected content in accordance with the one or more first usage rights by decrypting the protected content by a first content encryption key in a first secure environment of the user device and by accessing the decrypted content in the first secure environment,
- defining at least one usage right at the user device, the at least one defined usage right specifying one or more usage restrictions and/or one or more usage permissions of the content at a recipient device and the at least one defined usage right comprising a temporal restriction,
- verifying that the at least one defined usage right is a subset of the one or more first usage rights,
- generating at the user device integrity protection information for the at least one defined usage right,
- encrypting the content with a content encryption key,
- encrypting the content encryption key with a key encryption key associated with the recipient device and/or an operator of the recipient device,
- communicating the encrypted content, the at least one defined usage right, the encrypted content encryption key, and the integrity protection information to the recipient device,
- restricting the one or more first usage rights in consequence of the definition and/or the communication of the at least one defined usage right to the recipient device,
- verifying at the recipient device the integrity of the at least one defined usage right based on the integrity protection information,

- decrypting at the recipient device the encrypted content encryption key with a decryption key corresponding to the key encryption key,
- decrypting the encrypted content with the content encryption key in a secure environment of the recipient device,
- applying the at least one defined usage right to the content in the secure environment,
- using the content at the recipient device according to the applied at least one usage right,
- restricting or blocking or deleting the at least one defined usage right at the recipient device before the expiry of the temporal restriction,
- generating by the recipient device at least one received usage right that is a subset of the at least one defined usage right,
- communicating an indication of the restricting or blocking or deleting to the user device, the indication comprising the at least one received usage right, without returning the encrypted content to the user device,
- applying the at least one received usage right at the user device until the expiry of the temporal restriction, and
- abolishing the restriction of the one or more first usage rights when the temporal restriction expires (emphasis added).

Applicant submits that Ginter, Kawell or any combination thereof fail to disclose or suggest the new claimed method which recites the same limitations that have been discussed above with respect to the amended independent claim 1 and also recites where the recipient device communicates the at least one received usage right to the user device without returning the encrypted content to the user device. This new limitation further distinguishes the claimed invention from Ginter, Kawell or any combination thereof. Accordingly, Applicant respectfully requests the allowance of the new independent claim 29.

CONCLUSION

In view of the foregoing remarks, Applicant believes all of the claims currently pending in the application to be in a condition for allowance. Therefore, Applicant respectfully requests that the Examiner withdraw all objections and rejections and issue a Notice of Allowance for pending claims 1, 5-11, 15-21, 24 and 29.

The Commissioner is hereby authorized to charge any fees for this paper to Deposit Account No. 50-1379.

Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,

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